

I CLAIM:

1. A resistance mechanism comprising:

- a. a base rod, having two ends and a defined axis
- b. at least one compressible cylinder in a coaxial relation to the base rod.
- 5 c. a stop structure, abutting the at least one cylinder and disposed at one end of the base rod
- d. a thrust block, disposed next to the at least one cylinder towards the end opposite the stop structure, the thrust block further comprising:
 - i. a block body having a centrally defined hole, through which the base rod passes;
 - 10 and
 - ii. a pivot axel, extending in a downwards direction from the block body;
- e. An interface for attaching to a device requiring a resistance feature, the interface located at the end opposite the stop structure;

wherein, the resistance mechanism is actuated when the base rod is pulled in a manner to
15 lessen the distance between the thrust block and stop structure, thereby compressing the at least one cylinders and providing resistance.

2. The resistance mechanism of claim 1 further comprising at least one bushing, coaxially attached inside of each compressible cylinder between the cylinder and the base rod, said bushing being non-compressible so as to limit compression of each cylinder.

20 3. The resistance mechanism of claim 1, wherein at least one material from which the at least one compressible cylinder is composed is selected from the group consisting of: rubbers, synthetic rubbers, plastics, polymers, and metals.

4. The resistance mechanism of claim 3, wherein the stop structure is a handle, coaxially disposed on the base rod.

5. The resistance mechanism of claim 4, wherein the handle is threadingly engaged to the base rod, allowing for both removal and pre-compression of the at least one cylinder thereby increasing resistance.

6. The resistance mechanism of claim 2, wherein the stop structure is a handle, coaxially disposed on the base rod.

7. The resistance mechanism of claim 6, wherein the handle is threadingly engaged to the base rod, allowing for pre-compression of the at least one cylinder thereby increasing resistance.

8. The resistance device of claim 1, wherein the stop structure is a handle, coaxially disposed on the base rod.

9. The resistance mechanism of claim 9, wherein the handle is threadingly engaged to the base rod, allowing for pre-compression of the at least one cylinder thereby increasing resistance.

10. An exerciser comprising:

a. an exerciser base, further comprising:

i. a central base support;

ii. stabilizing means;

iii. a single upwardly extending base axel, extending from the base support;

b. a rotative body, coaxial with the base axel and having a generally horizontally displaced axel and a resistance attachment means disposed opposite the horizontally displaced axel;

c. a pair of foot pad arms, cantileverally attached to the horizontally displaced axel, one on either side of the rotative body; and

d. a pair of attachment rods, each with a pair of joints disposed at opposite ends of each rod and attached individually by a joint to a foot pad arm and both attached by the other joint to the base axel, said location of the connection with the base axel being disposed above the rotative body, thereby locating the connection of the rods with the base axel above the foot pad arms;

wherein foot pad arms are actuated in a vertical manner and thereby draw rods up and down with foot pad arm and foot pad arms rotate with the rotative body due to the fixed length of the rods.

11. The exercise device of claim 10 further comprising a resistance means for providing restorative force when the footpad arms are actuated.

12. The exercise device of claim 11, the resistance means comprising:

- a. a base rod, having two ends and a defined axis
- b. at least one compressible cylinder in a coaxial relation to the base rod.
- c. a stop structure, abutting the at least one cylinder and disposed at one end of the base rod
- d. a thrust block, disposed next to the at least one cylinder towards the end opposite the stop structure, the thrust block further comprising:
 - i. A block body having a centrally defined hole, through which the base rod passes; and
 - ii. a pivot axel, extending in a downwards direction from the block body; and
- e. an interface for attaching to a device requiring a resistance feature, the interface located at the end opposite the stop structure;

wherein, the resistance mechanism is actuated when the base rod is pulled in a manner to lessen the distance between the thrust block and stop structure, thereby compressing the at least one cylinders and providing resistance.

13. The resistance mechanism of claim 12 further comprising at least one bushing, coaxially attached inside of each compressible cylinder between the cylinder and the base rod, said bushing being non-compressible so as to limit compression of each cylinder.

14. The exercise device of claim 13, wherein at least one material from which the at least one compressible cylinder is composed is selected from the group consisting of: rubbers, synthetic rubbers, plastics, polymers, and metals.

15. The exercise device of claim 14, wherein the stop structure is a handle, coaxially disposed on the base rod.

16. The exercise device of claim 15, wherein the handle is threadingly engaged to the base rod, allowing for both removal and pre-compression of the at least one cylinder thereby increasing resistance.

17. The exercise device of claim 13, wherein the stop structure is a handle, coaxially disposed on the base rod.

18. The exercise device of claim 17, wherein the handle is threadingly engaged to the base rod, allowing for pre-compression of the at least one cylinder thereby increasing resistance.

19. The exercise device of claim 12, wherein the stop structure is a handle, coaxially disposed on the base rod.

20. The exercise device of claim 19, wherein the handle is threadingly engaged to the base rod, allowing for pre-compression of the at least one cylinder thereby increasing resistance.